PROBLEM STATEMENT
No. 29

ARDOT TRC TRANSPORTATION RESEARCH COMMITTEE

RESEARCH PROBLEM STATEMENT

DATE: 08/30/2018	PROJECT AREA: Planning

TITLE: Feasibility and Locations of Intermodal Terminals in Arkansas

PROBLEM STATEMENT:

The potential for freight mode shift can be realized through the provision of strategically located and effectively sized freight transfer facilities. Such facilities support the efficient movement of intermodal (or container) and transload (or bulk goods) commodities in a region. Moreover, movement of goods via water and rail rather than by truck can have positive impacts on highway maintenance needs and the environment. Discussions with stakeholders conducted in TRC1608, Locating Transload Facilities to Ease Highway Congestion and Safeguard the Environment, revealed a potential market in Arkansas for intermodal facilities. Specifically, stakeholders indicated need and feasibility of a small scale, single crane intermodal container facility that can move agricultural goods like the state-of-the-art Container Transload Facility (CTF) in Columbus, Ohio. Intermodal facilities move international and domestic containers between modes while transload facilities move non-containerized products. While there are significant rail-to-truck intermodal facilities in Memphis and Kansas City and a small intermodal facility in West Memphis, no facilities are located south and west of those locations until you reach New Orleans, Houston, or Dallas. Therefore, as a follow-up to TRC1608, a study to determine market potential, locations, and impacts of intermodal (containerized) facilities in Arkansas is proposed. The study will incorporate waterway and rail network usage and access to determine feasibility of 'containers on barge' (COB) and 'containers on flat car' (COFC) services.

OBJECTIVES:

The objective of the proposed study is to identify if there's a need for additional intermodal terminal capacity in Arkansas, and if there is such a need, what location(s) should be prioritized for investment. The research team will address this objective through four tasks:

1. Develop a methodology to estimate intermodal container movement across the state.
2. Recommend potential intermodal facility locations through this methodology and stakeholder interviews.
3. Estimate costs of intermodal facilities.
4. Analyze the impact of intermodal facilities on the trucking industry.

FORM OF RESEARCH IMPLEMENTATION AND RETURN ON INVESTMENT:

Freight (ton-miles) originating in and destined for Arkansas are predicted to grow 47% and 65% by 2040, respectively. If most of this dramatic increase is moved by truck, Arkansas will see significant pavement damage, congestion effects, and environmental impacts. It is necessary to investigate how to best shift some of this tonnage to more efficient modes, e.g. water and rail. This project can guide ARDOT and other intermodal stakeholders when considering investments in intermodal capacity. A similar study executed in Michigan found cost savings as high as 25%. A study in Virginia found that optimizing the movement of freight by truck and rail reduced the number of truck miles by over 900,000 miles/year, saving $300,000/year. Implementation will include a final report recommending characteristics and locations of intermodal facilities in Arkansas.

Estimated Project Duration: 18 **Months**

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Standing Subcommittee Ranking	Advisory Council Ranking	Statement Combined with Statement Number(s)
5/6	20/37	